

**STRATEGY
RESEARCH
PROJECT**

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**J.F.C. FULLER:
HIS METHODS, INSIGHTS, AND VISION**

BY

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J.F.C. Fuller: His Methods, Insights, and Vision

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ABSTRACT

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It has been over thirty years since the passing of Major General John Fredrick Charles Fuller, a military genius who devoted his life's work to the study of warfare, military leadership and military history. An author of 45 books, along with numerous lectures, reviews and articles, MG Fuller contributed immensely to the body of knowledge concerning warfare. As a military scientist, MG Fuller attempted to do for warfare what Copernicus did for astronomy, Newton for physics, and Darwin for natural history: establish a higher order for the study warfare based on scientific analysis and methods. As a critic, MG Fuller challenged and influenced his and other countries' military and political establishments through two World Wars, one Cold War, and several military contingencies. As a prophet, MG Fuller successfully foretold the future of warfare for much of the twentieth century—from the days of horse-mounted cavalry through mechanization and into the nuclear age. Finally, as either a participant, observer, or commentator on every major military conflict of the early and mid-twentieth century, and as a military historian ranging back to the battles of antiquity, MG Fuller has rightfully earned consideration as one of the most knowledgeable and thought provoking military figures of all time.

A better understanding of MG Fuller's methodology and insights into the nature of warfare at the strategic level could help guide our country's strategic leaders as we prepare to enter into the next millennium. This paper offers such an understanding.

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J.F.C.FULLER: HIS METHODS, INSIGHTS, AND VISION

No soldier of his day has higher credentials as an original thinker whose genius stands the test of the battlefield.... The Englishman did more to anticipate the changing form of war in our times, and, by anticipating, speed the weapons revolution, he is sometimes called the Clausewitz of the twentieth century. – S.L.A. Marshall¹

It has been over thirty years since the passing of Major General John Frederick Charles Fuller, a military genius who devoted his life's work to the study of warfare, military leadership, and military history. The author of 45 books, along with numerous lectures and hundreds of articles and papers, MG Fuller contributed immensely to the body of knowledge concerning warfare from the tactical through the strategic levels. As a military scientist, MG Fuller attempted to do for warfare what Copernicus did for astronomy, Newton for physics, and Darwin for natural history: establish a higher order for the study and conduct of warfare based on scientific analysis and methods.² As a critic and alleged heretic, MG Fuller challenged and influenced his and other countries' military and political establishments through two World Wars, one Cold War, and several military contingencies. As a prophet, MG Fuller successfully foretold the future of warfare for much of the twentieth century--from the days of horse-mounted cavalry through mechanization and into the nuclear age. Several of MG Fuller key predictions include:

- Foreseeing the decisive nature of armored forces.
- Predicting the mechanization of the battlefield and the decisive potential of air power both on land and at sea.³
- Predicting that the Allies' demand for Germany's unconditional surrender in WW II would give birth to the "Cold War".⁴

-- Foreseeing the fall of China to communism.⁵

As either a participant, observer, or critic of every major military conflict of the early and mid-twentieth century, and as a military historian ranging back to the battles of antiquity, MG Fuller has rightfully earned consideration as one of the most knowledgeable and thought provoking military figures of all time.

So what institutional role does such a distinguished military thinker, critic, and prophet play in the current U.S. Army's senior leaders' military education?

Unfortunately, his role is very insignificant. Although many of his ideas and maxims have been discussed and championed in past decades at our nation's senior leader war colleges, MG Fuller's current attributed contributions have been reduced to the following quotation found in many seminar rooms at Carlisle Barracks:

We shall teach each other: first, because we have a vast amount of experience behind us, and secondly, in my opinion it is only through free criticism of each other 's ideas that truth can be thrashed about.... During your course here no one is going to compel you to work, for the simple reason that a man who requires to be driven is not worth driving...thus you will become your own students and until you learn how to teach yourselves, you will never be taught by others.

Our country and its political and military leaders are preparing to enter into the next millennium, a millennium in which "technology is leaping ahead in every research field; high energy physics, computing, nuclear physics, space chemistry, materials, biotechnology, and electronics...at rates which appear exponential." At this critical time, could a better understanding of MG Fuller's methodology and his insights into the nature of warfare at the strategic level help guide them in the performance of their duties? ⁶ I believe it could. This study seeks to demonstrate Fuller's currency. First, I present a concise review of Fuller's personal background. This will be followed by a

presentation of Fuller's methodology and his insights into the nature of warfare at the strategic level. I conclude by presenting what I believe would be a Fullerian vision of warfare in the early 21st century.

PERSONAL BACKGROUND

He was a man of many parts: tactical theorist, exponent of mechanization, military reformer, mystic, political publicist, journalist, and historian. He was the first British military thinker who could withstand comparison with Jomini and Clausewitz.⁷

MG Fuller was born September 1, 1878, at Chichester, England. Like many persons of vision and originality, he possessed great self-confidence, as well as an abrasive and tactless personality. Fuller had an aversion to siding with the popular view of any subject, insisting instead on the minority position. He was a man of considerable moral courage. Fuller despised bureaucrats. . .⁸

MG Fuller's early life was uneventful and comfortable. He was self-taught and did not receive university instruction other than at the Royal Military College. He was commissioned in the light infantry in August 1898 and saw service as an intelligence officer in the Boer War. He later served in India. Fuller was promoted to captain in June 1905, to major in 1913, and attended the staff college in 1913. He served in the First World War initially on the staff of Third Army prior to being transferred to the British Tank Corps where he helped plan the Battle of Cambri. His experience with the fledgling British armor corps exposed Fuller to the potential of armor and mechanized forces. Fuller's most significant and innovative achievement of the war was his concept paper entitled "Plan 1919" that outlined a plan for a large armored offensive in the spring of 1919. The aim of the offensive was to break the stalemate of trench-warfare

and return mobility and decisiveness to the battlefield. Plan 1919 would serve as the foundation for Fuller's future thoughts about maneuver warfare.⁹

Promoted to colonel in 1920, Fuller served a three-year tour as a professor at the British Army Staff College. After serving at the staff college, he was named military assistant to Lord George Milne, Chief of the Imperial General Staff. Fuller offered the following explanation for accepting his posting to the General Headquarters Command: "I was resolved to work for General Headquarters Command in order to work for what I believe to be right rather than arguing over what I believed to be wrong."¹⁰

It was during the early and mid-1920's that Fuller's mind and writings began to focus on the study of warfare and on the need to develop a scientific method to organize its study. MG Fuller's aim was to gain a complete understanding of the nature of warfare in hopes of controlling it, of predicting its future requirements, and of using his system to better educate strategic leaders about the conduct of warfare. During this timeframe, Fuller wrote and published three books: The Foundations for the Science of War, On Future War, and Reformation of War. These works codified his scientific methods of study, his insights on warfare, and his vision of future warfare.

After commanding units on the Rhine and at Catterick, and after refusing command of the Bombay District, which he deemed an exile, MG Fuller retired from active service in December 1933 and began his long and sometimes notorious civilian journey. In the 1930's, his civilian experiences were diverse and at times personally damaging. Fuller toyed with the British Fascist movement. He covered the Italian invasion of Abyssinia for *The Daily Mail* in 1935-36, and he authored The First of the League Wars setting forth his views on policy, strategy, and warfare in Western

Civilization. It was during this period that Fuller published Grant and Lee: A Study in Personality and Generalship, an outstanding contribution to the body of knowledge concerning the strategic leadership of the American Civil War.

In the 1940's and 1950's, MG Fuller devoted himself to historical writing-- producing several great works including The Decisive Battles of the Western World and their Influence upon History and The Second World War, 1939-45: A Strategical and Tactical History. He also continued to criticize military policy and to participate as an adviser in various efforts to promote improvements in military technology.¹¹

On October 31, 1963, the Royal United Service Institution honored MG Fuller with the Chesney Memorial Medal for outstanding contributions to military science. The decoration recognized a man who had attained the status of the greatest military historian in the English-speaking world. Other recipients include Alfred Thayer Mahan, Liddel Hart, and Winston Churchill.¹² Fuller's spent his final years suffering the attendant indignities of advanced age. With his books written and his insights into warfare codified, he passed the time in quiet self-evaluation.¹³ MG John Frederick Charles Fuller died of pneumonia on February 10, 1966.

FULLER'S SCIENTIFIC METHOD FOR THE STUDY OF WARFARE

Fuller was the first British military writer to whom the heads of continental armies turned for guidance. – Liddel Hart¹⁴

Begin with observation, go on with experiments, and supported by both, discover law and reason. – Leonardo Da Vinci

I believe MG Fuller's efforts to provide a scientific system for the study of warfare should be better accepted and be of greater value today than when he first proposed them in the early 1920's. The reason for this acceptance and greater value is the U.S.

military's critical dependency on technology and on its continuing efforts to select and leverage technologies for future applications. As Timothy Garden in The Technology Trap concluded:

It is clear that pure scientific research is the key to both commercial and military technology...interesting scientific novelties...lead to military capabilities...what is needed is a certain way of deciding which technologies will improve future security.... Our current and future efforts to leverage technologies should not depend, as we have repeatedly done in the past, on the lucky coincidence of the technologies and a single-minded enthusiast.¹⁵

In 1923, in the preface to Reformation of War, MG Fuller established the purpose behind his study of warfare and his attempt to provide a more certain way of deciding future technologies: "If we can establish a scientific method of examining war, then frequently shall we be able to predict events—future events—from past events, and so extract the nature and requirements of the next war possibly years before it is fought.¹⁶

I believe the inspiration for MG Fuller's life's work was threefold: his personal traits, his horror at the slaughter of British soldiers on the battlefields of northern France in World War I, and his belief that an application of the scientific method to the study of warfare might be a way to educate future strategic leaders. In Fuller's own words: "I intend inquiring into the nature of future warfare, not because I love war or hate war, but because I believe that war is of the inevitable...for war is a serious problem, and the next war the most serious of all problems... my object is to induce all conditions of men not only to talk of war but to think of war."¹⁷

MG Fuller believed a scientific approach to the study of warfare was required because "every art is founded upon science.... Facts, laws, experience, and inference

form the original source and foundation of all our knowledge, practice, and progress."¹⁸

Fuller agreed with the scientific theorist view of W. K. Clifford's that "while technical thought or skill enables a man to deal with the same circumstances that he has met with before, scientific thought enables him to deal with different circumstances that he has never met with before."¹⁹

What did Fuller mean by "application of a scientific method"? Fuller had a very simple view of science: "science...is nothing else than true knowledge in place of haphazard knowledge, logical thinking in place of chaotic thinking, and ultimately truth itself in place of falsehood...a science teaches us to know, and art to do."²⁰ Fuller further explained the scientific method as "coordinated knowledge, facts arranged according to their values." He supported the view of Thomas Huxley that science is "organized common sense...the rarest of all senses." MG Fuller best described the essence of his scientific approach to warfare as: "We first observe; next we build up a hypothesis on the facts of our observation; then we deduce the consequences of our hypothesis and test these consequences by an analysis of phenomena; lastly we verify our results, and if no exception can be found to them we call them a law."²¹

Fuller believed that the great benefit of the application of his scientific method was that it would lead to the creation of new ideas. He believed that the creation and issuance of new ideas would generate thought, research, and criticism that in the end would produce a better result. In Reformation of War, Fuller observed:

I must also create as well as destroy, and if I only can create, destruction will follow as an inevitable consequent. Research will lead to independence of thought, and this independence to an improvement of method...the great lesson of Socrates "It is not what the teacher does for the pupil, but what the pupil does for himself, that matters."²²

To better understand the rational behind MG Fuller's scientific methods and insights into warfare, we first should appreciate his views on the composition of armies and of ordinary normal men. As revealed in Foundations, Fuller believed that "an army is not a band of geniuses, but of ordinary normal men." Fuller described the ordinary normal man as "a product of fears and not of facts...a poor receptive creature, obsessed by prejudices and fearful of novelty and innovation...he prefers old judges, old lawyers, old politicians, old doctors, and old generals." Fuller believed that "the majority of mankind lives by imitation." Fuller further described the ordinary normal man's mind as one that "asks for nothing better than to repose blindly to authority...belief in the written word and unwritten tradition is still the master."²³

From Fuller's view of the composition of armies and of ordinary normal man, we obtain a sense of the institutional and individual inertia that new ideas must overcome to gain acceptance. Fuller's goal was to challenge his audience to use the scientific method to rise above the "normal man's" inclination to "imitate and repeat." He challenged leaders to think logically through a situation instead of blindly trusting authority figures or written doctrine. But the development of this logical rational thought process in MG Fuller's view was not an easy task. He readily acknowledged "that we are slaves of the past...we are obsessed by imitation, we are forever copying thoughts and actions without weighing their values or considering their results." Fuller suggested a remedy for our obsession with imitation: "We must liberate our thoughts from customs, traditions, and shibboleths, and learn to think freely.... When anything appeals to us or displeases us we must not accept it on its face value, but examine it, criticize it, and discover its meaning and inner worth."²⁴

Fuller strongly believed that the key requirement for rational thought was imagination. In Foundations he wrote: "Imagination is the telescope of our minds.... Without imagination the man...lacks mental vision...the man with no imagination may collect facts, but he cannot make great discoveries." Fuller also believed imagination alone was not enough. Any methodology had to allow and indeed welcome criticism. Likewise, creative thinkers needed the moral courage to stand up to criticism. Again in Foundations Fuller wrote: "the men who have contributed to our real understanding of natural phenomena have been those who were unstinting in their application of criticism to the products of their imagination." Fuller believed that "if criticism is the life-blood of science then of all the weapons in our mental armory it is the most potent in our study of war...without criticism there can be little or no progress."²⁵

In summary, Fuller was an advocate of the scientific study of warfare because he believed future war was inevitable and that a scientific methodology could be used to better prepare leaders and forces to win the next war. Fuller believed a scientific approach would assist in predicting future military requirements through its generation of ideas and criticism, which would result in better ideas and solutions. The most significant key to Fuller's scientific approach was the application of the scientific method based on analysis, synthesis, and hypothesis. Other keys to his system included the need to apply rational thought, the need to possess a developed imagination to formulate new ideas, and the requirement that the idea's originator possess the moral courage to stand up to the criticism.

FULLER'S INSIGHTS AND VISION

Having been a participant and agent of change in two wars, and having been an observer, student, critic and historian for most of the other significant military conflicts of the twentieth century, MG Fuller applied his scientific method and fertile imagination to develop numerous insights on warfare. Several of Fuller's key insights that I believe would benefit current and future strategic leaders include Fuller's thoughts on the nature of warfare and his vision of future warfare.

Fuller's Insights into the Nature of War

War, like diseases, takes many forms and its surgeons and physicians must apply their remedies accordingly.... Quackery is not only the most universal of all pestilence but also the most common that afflicts mankind.²⁶

War in its philosophical form is a struggle of two wills in opposition. Each of these wills is protected by economic resources, ethical codes, social rights and military forces...maintaining them requires an elaborate structure...so sensitive and centralized that an extensive and vulnerable moral target was offered—the paralysation of the national will.²⁷

Fuller's system and study led him to develop several insights into the very nature of war, its causes, and the requirements needed to bring about a better peace. Fuller believed that from the earliest record of mankind "war has been his [mankind's] dominant preoccupation." Even though man's constant desire "has been for peace," Fuller concluded "man never has been willing to accept and fulfill the conditions of treaties and regulations which he created in the effort to preserve peace." This unwillingness or inability to accept and fulfill the requirements for peace led Fuller to conclude that future wars are inevitable.²⁸ Fuller observed that throughout the history of man there have been three primary causes of war: "Those of race, of education and religion, which give us ethical causes; secondly, those of commerce, industry, and

supply, which lead to economic causes; and thirdly, those of geography, communications, and fighting strength, out of which evolve military causes.²⁹ He suggested a very succinct solution for the establishment of a stable peace: "The conditions for a stable peace, I think, are fairly obvious. The causes of war have got to be eliminated. Until they are eliminated you won't get a stable peace."³⁰

Regarding the actual conduct of war, Fuller postulated warfare had a duality of fronts, an inner and an outer front:

There are always two fronts in a war; an outer or physical front, the province of the general, an inner, or psychological front, the province of the statesman...the former battles are fought with weapons, while on the latter they are fought with the ideas enshrined in the policy the statesman adopts towards the enemy's people.³¹

He also provided a warning to the military about the statesman's interest in the conduct of the inner or psychological front of warfare:

Throughout history wars have been unceasing; yet strange to relate, statesmen upon whom the main burden of the conduct of war falls have paid only passing attention to the records of the past.³²

The civilian dislikes war, and he thinks that it can be killed by calling it by a bad name.... If we create a little hell and put war into it, it will take upon itself a hellish form. If instead, war is looked upon as a world force, and we do not prejudice our views by calling it good or evil, we shall begin to understand it. To look upon war as a world force and attempt to utilize it more profitably is surely better.³³

Fuller's scientific method and studies lead him to endorse several of Clausewitz's maxims on warfare. In 1961, in a letter to his publisher, he wrote: "Regarding Clausewitz, my intention is not to outmode him, but--were there such a word--to in-mode him; to bring him into fashion and get people to read him instead of quoting him." Fuller believed that "the unfortunate thing about On War is that nine-tenths of it are now obsolete, and the one-tenth, which is pure gold, gets lost in the

rubble.”³⁴ Fuller believed that Clausewitz’s “pure gold” included his insistence on the relationship of war and policy, “...a leader in war should use no greater force, and set himself no greater military aim than would be sufficient for their achievement of his political purpose”.³⁵ Fuller wholeheartedly endorsed Clausewitz’s three principal objects for waging war:

(1) To conquer and destroy the enemy’s armed forces.

(2) To get possession of the material elements of aggression and of the other sources of existence of the hostile army.

(3) To gain public opinion.³⁶

Fuller also endorsed Clausewitz’s five strategic principles:

(1) First and most important is to employ all the forces that we can make available with the utmost energy.

(2) The second is to concentrate our force at the point where the decisive blows are to be struck, to run the risk even of being at a disadvantage at other points, in order to make sure of the result at the decisive point, the success at that point will compensate for all defeats at secondary points.

(3) The third principle is not to lose time...by rapidity many measures of the enemy are nipped in the bud and public opinion is gained in our favor.

(4) The fourth is surprise...it is the most powerful element of victory.

(5) And the last is to follow up successive gains with the utmost energy. The pursuit of the enemy when defeated is the only means of gathering up the fruits of victory.³⁷

Fuller’s views departed from Clausewitz in some aspects of strategic aim and in the object of battle. In regards to strategic aim and the object of battle, Fuller agreed with Clausewitz that the strategic aim should be “to clinch a political argument by means of force in place of words...this is accomplished by battle.” But Fuller departed from

Clausewitz when he declared "the true object of [war] which is not physical destruction but mental submission.... The idea that an enemy must be destroyed is only legitimate when it leads to a profitable state of peacefulness.³⁸ In addition, Fuller believed "in battle...the object of each side is not to kill for the sake of killing, but for the sake of disorganizing. For military strength does not reside in individuals, but in the cooperation of individuals and masses."³⁹

Fuller postulated numerous maxims for the design of campaigns and the conduct of battles. Several of those that I believe still apply today and may apply in the future include:

...the aim of the general is not to win victories, but to bring the war as rapidly as possible to a successful conclusion. Each battle should be a distinct stepping stone to this end--the crossing of the river of war.⁴⁰

If...we can strike a crushing blow first, even if we only crush a small force of the enemy, we not only gain a physical victory...but a moral victory.⁴¹
Finding is the first step towards maneuvering, just as hitting is the first step in holding. Only when an enemy is held, is liberty of maneuver gained and liberty of movement carries with it freedom of action, which is the aim of all generalship.⁴²

Uncertainty arising from fear of the unknown...It teaches us that the rear demoralizes the front; that to surprise the front we must attack the rear. First the rear of the front, secondly the rear of the reserves, thirdly the rear of the command and so on back to the initial will of the people who desire victory and dread defeat.⁴³

Once you have knocked your enemy out, it is wise to set him on his feet again,⁴⁴ because the chances are that you will need his assistance in the next conflict.

In summary, many of Fuller's insights can assist strategic leaders in their analysis and planning efforts. His insights can steer leaders towards the causes of future warfare, so elimination of causes can bring about lasting peace. They can assist by requiring leaders to address both the physical and psychological fronts of warfare and by ensuring that the civilian leadership executes its role in the conduct of warfare.

His principles regarding the application of means and his guidance on conflict termination and endstate may prove worthwhile. Lastly, Fuller's twentieth century endorsement and modification of Clausewitz's nineteenth century maxims on warfare have great relevance for current strategic leaders. This endorsement and modification are relevant due to the dramatic changes in the nature of war that have occurred since the Napoleonic battlefields and political courts of kings and tyrants of the early 1800's. Changes such as increased battlefield lethality and dispersion, mechanization, air warfare, submarine warfare, improved C4I (command, control, communications, computers and intelligence), the development and impact of nuclear weapons, and the rise of democratic/social/communistic political institutions have significantly altered both battlefields and political arenas. Fuller's views, intellectually filtered through his participation in war and his critical observation and study, provide an endorsement of Clausewitz that contains a twentieth century expert's "ring of truth."

On Future War

There are two main causes for military shortsightedness: the first is the worship of traditions, and the second is our incapacity to see world forces in their true relationship....⁴⁵

...there was "ample room" for a major textbook on "the Conduct of War"--a kind of official manual for warlords contemplating war in the future. It should be written for both the statesmen and soldiers and be made compulsory reading. With advantage it might be divided into two parts: "How to Conduct a War" and "How not to Conduct a War"; for the second part...there is a superabundance of materials.⁴⁶

If Fuller were able to observe and analyze the world today, I believe he would conclude that the current and near-future U.S. position is similar to that of the British

Empire in the early 1920's. In Reformation of War, Fuller observed, analyzed, and provided counsel to a British Empire burdened with an immense debt accumulated during World War I and suffering from "acute nervous unrest...which at any moment...should lead it to a nervous breakdown." I believe a resurrected Fuller today would observe an United States loaded with an immense debt accumulated during the Cold War and suffering from acute nervous unrest...based on domestic political uncertainty, deteriorating third world stability, and the lack of a common vision for the future.⁴⁷

As in 1923, Fuller would observe no balance of power existing between the nations of the civilized world, and he would advise that "until one or more demented nations again attempts to...grasp at world dominion...a Great War is unlikely."⁴⁸ Therefore, as he counseled the political leaders of the British Empire of the early 1920's, the U.S. strategic problem would be a problem of small wars and internal security in militarily and politically backward lands.⁴⁹ Fuller would divide the problem of US security and defense into three categories: "great wars, small wars and domestic tranquillity--the objective of which would be the maintenance of policy internal and external."⁵⁰

Fuller would offer the following guidance about fighting small wars:

...the form of the warfare to be adopted must tone with the shade of culture existing in the land, against peoples possessing a low civilization, war must be more brutal in type than against a highly civilized nation; consequently, physical blows are normally more likely to prove effective than nervous shocks.... war on land will predominate over war in the air...⁵¹

As he did in 1923, Fuller would attempt to answer the following key strategic question: "How are we going to secure the world by means of our small army, small air

force and depleted navy?" Fuller's guidance on how to overcome ever increasing constraints on resources would be: "As you cannot increase the size of your military forces; consequently there is only one thing to do, reduce the size of the world to fit your force." Reducing the size of the world to fit US forces would be accomplished by increasing the "present speed of military movement so that your securities, through enhanced mobility, may be brought to balance your liabilities."⁵²

Fuller would fully endorse US efforts to increase strategic lift capabilities and efforts to increase the agility of operational forces. Such improvements would be needed to support Fuller's operational response concept for future conflicts. This concept calls for the formation of rapidly deployable "fire brigades...ready to go anywhere globally."⁵³

Regarding the actual conduct of warfare in the early twenty-first century, Fuller would warn military and political leaders about the need to increasingly restrict warfare itself. Fuller's reasons for the necessity of such restriction would include the following: restricting the nature of warfare will be in the best interest of nation states due to war's potentially absolute destructiveness, and changes in military methods will promote a limitation on the destructive scope of war.⁵⁴ Fuller's would provide three reasons for the limitations on the destructive scope of future wars:

- (1) Future warfare will become increasingly scientific. The whole tendency...will be towards economizing the application of force. This economy will apply to the conduct of war as armies increasingly come to reflect the pace of scientific progress.⁵⁵
- (2) Greater scientific preparation will enhance the possibility of gaining a decision in the opening phase of any war. The primary cause for being able to gain an early

decision will be increased strategic mobility. The object of this superior protected movement will be not only to move more rapidly in a given time or over a given space than the enemy, but also to obtain a maximum and, if possible, superior offensive power—which will promote maximum concentration of force in the most important strategic and operational areas.⁵⁶

(3) More mobile and decisive warfare will negate the need for methodical destruction.⁵⁷

Fuller's analysis on the impact of nuclear weapons on future wars would remain consistent with his past views:

Physical warfare in its nuclear form has eliminated itself. Instead of being a positive instrument of policy, it is a negative one...they deter their like, because their use would spell mutual suicide...Under the cover of the terror induced by the threat of nuclear attack, war has been put on cold storage. Armies ... give way to factories, weapons to goods, and markets were to become the battlefield of the future.⁵⁸

Regarding the initiation future wars, Fuller would postulate that "...the Japanese attack on Pear Harbor was likely to become the classic example of the declaration of future wars."⁵⁹ He would warn o

future, great battles will undoubtedly be waged to win or to hold them. This will lead to war in thickly populated areas.”⁶¹

In summary, a Fullerian vision of future warfare would include the following key characteristics. A symmetrical conventional great war will be unlikely; nuclear weapons will continue to put physical warfare between great powers in “cold storage.” Warfare amongst great nations will be restricted to economical competitions, and “armies will give way to factories, weapons to goods, and markets are to become the battlefield of the future.”⁶² Future physical wars will be small restrictive conflicts. They will be fought against undeveloped nations. The nature of such wars indicate that ground forces will be preeminent. Future wars will be short-notice events of short duration requiring participants to remain ever vigilant , always prepared to react rapidly with a superior force. The keys for the successful prosecution of small wars include: improvements in the speed and capabilities of strategic and operational movements, continued scientific development to improve military means, and the sustained ability of strategic leaders to restrict the nature of the war thus preventing it from escalating into a great war and possible mutual nuclear suicide. Finally, future threats will include asymmetric forces-- tied closely to urban terrain.

CONCLUSION

What relevance then do Fuller's methods and insights have for current strategic leaders? I see a threefold relevance: MG Fuller was a critical thinker of great imagination and conviction who provided numerous insights into the nature of warfare; Fuller codified an original and scientific method for the study of warfare; and finally, he provided the vision of a true prophet regarding the conduct of warfare in this century. Fuller's works are full of insights into policy, strategy, and advancements and changes in the nature of warfare from the days of antiquity to the nuclear age. He provided an alternative image of the world--a view that in many ways is more critical of the past and more descriptive of a possible future. As an antagonistic thinker who possessed the moral courage to stand up for his convictions, Fuller developed and codified a scientific methodology to study warfare and used it to develop and promulgate principles for war that are still relevant today. He possessed the moral courage to publish his convictions, many of which were unpopular-- some even earned him a reputation as a heretic. Fuller fearlessly took on the British military establishment, several generations of both British and US political masters, and the Soviet Union. I believe his rather harsh criticism of US policy during WW II still rings true today:

Americans failed to understand that war is an instrument of policy. They did not know how to wage war, and in consequence they did not know how to make peace. Americans substituted militarism for statesmanship and their overall outlook on the purpose of war was shortsighted...over-concentration on achieving victory at the expense of establishing a satisfactory peace.⁶³

Lastly, I believe Fuller's undeniable legacy, his greatest value to strategic leaders, is that he inspires and challenges them to look to the future through scientific study of the past; to attempt through knowledge, rational thought, imagination, and criticism to "think

of war"-- to better predict its changes and future-- and most importantly to always ask the most powerful question--why?

It is interest and curiosity which cause us to reflect, and if there is one word in the dictionary which is omnipotent it is the word WHY. Whatever I may say to the student, whatever he reads, whatever he thinks, he should ask himself the reason why. If he does not do so, however much he may strive to learn he will mentally be standing still. He must remember this: his brain is not a museum for the past or a lumber-room for the present; it is a laboratory for the future--a creative center in which new discoveries are made and progress is fashioned. ⁶⁴

Word Count – 5,865

ENDNOTES

- ¹S.L.A. Marshall, from the book jacket of Julius Caesar: Man, Soldier, and Tyrant, (New Brunswick: Rutgers University Press, 1965).
- ²J. F. C. Fuller, The Foundations of the Science of War, (London: Hutchinson, 1926), 18.
- ³Brian H. Reid, J.F.C. Fuller: Military Thinker, (New York: St. Martin's Press, 1987), 56.
- ⁴Ibid., 201.
- ⁵Anthony J. Trythall, 'Boney' Fuller: The Intellectual General, (London: Cassel, 1977), 240.
- ⁶Timothy Garden, The Technology Trap, (New York, London: Brassey's Defence Publishers, 1989), 2.
- ⁷Brian H. Reid, Studies in British Military Thought, (Lincoln: University of Nebraska Press, 1998), 63.
- ⁸Reid, J.F.C. Fuller: Military Thinker. 52, 200.
- ⁹Ibid.
- ¹⁰Bailey Benjamin F., Warfare and History as Interpreted by Three Twentieth Century British Military Historians, (Ann Arbor: University Microfilms, 1966), 65.
- ¹¹David H. Zook, Jr., "J.F.C. Fuller Military Historian", Military Affairs, Winter 1959-60, 185-193.
- ¹²Ibid.
- ¹³Trythall, 266.
- ¹⁴Reid, Studies in British Military Thought, 53.
- ¹⁵Garden, 134.
- ¹⁶Fuller, Foundations, 38.
- ¹⁷J.F.C. Fuller, Reformation of War, (New York: Dutton, 1923), vii, xi.
- ¹⁸Fuller, Foundations, 324.
- ¹⁹Ibid., 38.
- ²⁰Ibid.
- ²¹Ibid., 46.
- ²²Ibid., 34.
- ²³Ibid., 33, 35.
- ²⁴Ibid., 42.
- ²⁵Ibid., 46.
- ²⁶Reid, Military Thinker, 216.
- ²⁷Reid, Studies in British Military Thought, 98.
- ²⁸Fuller, A Military History of the Western World, xi.
- ²⁹Fuller, Foundations, 66.
- ³⁰"Permutation of War", Marine Corps Gazette, Dec 61, 26.
- ³¹Fuller, The Generalship of Alexander The Great, (New Brunswick: Da Capo Press, 1960), 267.
- ³²Ibid.
- ³³Fuller, Foundations, 32.
- ³⁴Trythall, 251.
- ³⁵Reid, Military Thinker, 212.

- ³⁶Fuller, The Generalship of Alexander The Great, 286.
- ³⁷Ibid., 287.
- ³⁸J.F.C. Fuller, Lectures on FSR III (Operations between Mechanized Forces). (London: Sifton Praed, 1932),37-38.
- ³⁹Reid, Studies in British Military Thought, 95.
- ⁴⁰Ibid., 77,78.
- ⁴¹Ibid., 79.
- ⁴²Ibid., 91.
- ⁴³Ibid.
- ⁴⁴Reid, Military Thinker, 215.
- ⁴⁵Fuller, Foundations, 31.
- ⁴⁶Reid, Studies in British Military Thought, 95.
- ⁴⁷Fuller, Reformation of War, 189.
- ⁴⁸Ibid.
- ⁴⁹Ibid.
- ⁵⁰Ibid., 190, 192-3.
- ⁵¹Ibid., 192.
- ⁵²Ibid.
- ⁵³Trythall, 241.
- ⁵⁴Reid, Studies in British Military Thought, 96.
- ⁵⁵Ibid.
- ⁵⁶Ibid., 97.
- ⁵⁷J.F.C. Fuller, "Military Inventions: Their Antiquity and Influence on War," Army Quarterly 25 (1933), 227.
- ⁵⁸"Permutation of War", 23.
- ⁵⁹Reid, Military Thinker, 210.
- ⁶⁰Ibid.
- ⁶¹Fuller, Foundations, 94
- ⁶²"Permutation of War", 23
- ⁶³Bailey, Warfare and History, 304.
- ⁶⁴Fuller, Foundations, 60.

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